

Appearance and disappearance of diabetes in this patient, apparently attributable to disturbances in the anterior pituitary, are considered in the light of our growing experimental knowledge of the rôle of the pituitary in carbohydrate metabolism.

NEW CONCEPT OF TRAUMATIC DIABETES.

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Diabetes is now recognized as being traumatic in origin only when it develops following direct injury to the pancreas. Modern physiology has shown that the body reacts to trauma with a general metabolic response and it becomes more and more evident that the "alarm reaction" is of as great clinical importance as is the locally sustained traumatic injury. Carbohydrate metabolism has been found to be involved intimately in adaptation of the organism to the traumatic reaction.

The purpose of this presentation is to relate a series of clinical observations in which a diabetic syndrome developed abruptly in connection with sudden severe illness (coronary occlusion, pulmonary embolism, abdominal surgery, septicemia, fracture of femur). An attempt is made to interpret the pathogenesis in these cases on the basis of a functional disturbance of the metabolic response to an emergency situation, rather than as the result of primary organic disease of the pancreas.

In only two cases could diabetic heredity be established. In all instances the onset of the disease was severe, requiring vigorous insulin treatment. Ketosis was present in two cases. With improvement of the precipitating disease, the diabetes showed marked amelioration.

Since the modern concept of trauma comprises not only local reaction to injury but the bodily response as well, it is proposed to broaden the concept of traumatic diabetes to include recognition of the alarm reaction as an etiologic mechanism.

EXPERIMENTAL STUDY OF THE LIFE SITUATIONS, EMOTIONS AND THE OCCURRENCE OF ACIDOSIS IN A JUVENILE DIABETIC. *Lawrence E. Hinkle, Jr., M.D. and Stewart Wolfe, M.D., New York, New York.* (From the New York Hospital and the Depart-

ments of Medicine and Psychiatry, Cornell University Medical College.)

Clinical experience in the past has suggested that the course of diabetes mellitus can be influenced by life situations which induce certain emotional changes in the patient. Substantiation of this depends upon direct correlation of changes in the metabolic state with emotional states in diabetic subjects. The present report concerns such a detailed study in the case of a fifteen year old school girl who, despite careful regulation of insulin dosage and dietary intake, recurrently became acetonuric and required admission to the hospital twelve times within a period of five years.

She was found to be anxious, insecure and in constant conflict with her tyrannical mother. During one hundred days of observation it was found that she developed ketonuria on nine occasions, immediately after the onset of a situation which produced intense anger or fear. There were only nine such situations during the observation period and all were followed by ketonuria.

Further control of the experimental situation was achieved during a period of ten days when the patient was hospitalized and subjected to rigid control of dietary intake, insulin and muscular activity. Following a suitable control observation in the setting of a major threat to her personal security, she became intensely frightened and angry. Ketonuria appeared within twelve hours, was sustained throughout the period of stress and finally disappeared after the reassurance and reestablishment of security.

Thus alteration in the carbohydrate and fat metabolism as manifest by development of ketonuria appeared to be directly related to the emotional state and security of the subject.

SICKLING IN NEGRO NEWBORNS: ITS POSSIBLE RELATIONSHIP TO FETAL HEMOGLOBIN. *Janet Watson, M.D., Brooklyn, New York.*

Sickling preparations were made in 226 consecutive newborn negro infants and their 226 mothers. The standard sealed slide preparation incubated at 37°C. was used. Of the 226 infants, nineteen or 8.4 per cent showed sicklemlia; of the 226 mothers, eighteen or 8.0 per cent showed sicklemlia. Although the incidence of sicklemlia was almost identical in the two series, two differences in regard to the sickling became